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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/801,032

03/16/2004

Jun Okazaki

1035-500

1262

23117 7590 04/16/2007

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EXAMINER

MULPURI, SAVITRI

ART UNIT

PAPER NUMBER

2812

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/801,032	OKAZAKI, JUN	
	Examiner	Art Unit	
	Savitri Mulpuri	2812	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/19/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10,13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to the applicant's communication, amending the claims 1-10,
filed on 1/9/2007

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 13,14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchizaki et al (US 6,646,975) in combination with Tsutsui et al (US 6,197,609) or Goltl (US 6833284).

Claims 1-2, 5-10 are rejected under 35 U.S.C. 102(a) as being anticipated by Uchizaki et al teaches a method of making semiconductor laser device including plurality of semiconductor laser elements "240, 241" on a sub mount "354" comprising the steps of : an emission source forming step of stacking a semiconductor layer "212-217" for laser structure "240" and "222-227" for laser structure "241" on a GaAs substrate "210" and forming plurality of emission sources; a mounting step of mounting the substrate with the emission sources "250,251" on the sub mount(fig.10- fig.19 and col. 18, lines 40-53, fig. 24 E).

With respect to claims 1, 10 Uchizaki et al teaches cutting all the way into the substrate by reactive ion etching (see fig. 17, fig. 18, 24A-24C").

With respect to claims 2,5,6 Uchizaki et al teaches cutting all the way into the substrate by reactive ion etching, wherein isolation grooves "236" in layer structure are defined by a specific crystal face of semiconductor material of the semiconductor layer structure. (see fig. 17, fig. 18, 24A-24C").

With respect to claims 7-8 Uchizaki et al teaches sub mount is made of ceramic such as AlN, which can be insulator (col. 18, lines 44-45)

Okazaki et al do not teach the following limitation of after mounting the substrate with emission sources, cutting through the substrate between emission sources, so as to form a plurality of laser elements including apportion of the substrate and an emission source. Goltl et al teaches forming light emitting layers on a GaAs substrate "2" and forming grooves "7" and then mounting the substrate on a carrier sheet as surmount and cutting the substrate to form plurality of individual light emitting devices, where each includes a portion of the substrate and light emitting source for the benefit of high yield without risk of breakouts (see summary). It would have been obvious to one of ordinary skill in the art to perform first mounting and then cutting the substrate with light emitting device to form plurality of light emitting devices, where each cut section includes a portion of the substrate and light emitting source for the benefit of high yield without risk of breakouts.

Okazaki et al do not teach forming isolation grooves at greater interval than the substrate and not tapering towards the substrate. Tsutsui et al teaches forming isolation grooves at greater interval than the substrate and not tapering towards the substrate (see fig.1 and abstract).Tsutsui also teaches forming isolation grooves first and then

cutting the substrate through aligned in isolation grooves 15 and small grooves "16" . It would have been obvious to one of ordinary skill in the art to use tapering towards substrate to improve the light emitting devices.

Applicant's arguments with respect to claims 1-10, 13-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Savitri Mulpuri whose telephone number is 571-272-1677. The examiner can normally be reached on Mon-Fri from 8 a.m. to 4.30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Lebentritt, can be reached on 571-272-1873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Savitri Mulpuri
Primary Examiner
Art Unit 2812